WHAT IS CLAIMED IS:

1. A manufacturing method for an optical waveguide device, comprising the steps of:

forming a plurality of optical waveguides in a wafer having an electro-optic effect;

forming a plurality of signal electrodes and a plurality of grounding electrodes on said wafer in relation to each of said optical waveguides;

forming a dummy electrode on said wafer so as to surround all of said signal electrodes and said grounding electrodes on said wafer simultaneously with formation of said signal electrodes and said grounding electrodes; and

dicing said wafer to separate individual optical waveguide devices.

2. The manufacturing method according to claim 1, further comprising the step of bonding a pair of protective members on said wafer outside of said dummy electrode in proximity thereto, before said dicing step.

3. The manufacturing method according to claim 2, wherein said protective members are in abutment against said dummy electrode.

4. The manufacturing method according to claim 1, wherein said dummy electrode is rectangular and has area enlarged portions at the four corners.

5. The manufacturing method according to claim 1, wherein said signal electrodes, said grounding electrodes, and said dummy electrode are formed by electroplating of a material selected from the group consisting of Au, Ag, and Cu.

6. The manufacturing method according to claim 1, wherein said signal electrodes, said grounding electrodes, and said dummy electrode are formed by electroless plating of Cu.

7. An optical waveguide device comprising:

a substrate having an electro-optic effect;

an optical waveguide formed in said substrate;

a signal electrode formed in relation to said optical waveguide;

a grounding electrode formed on said substrate; and

a pair of dummy electrodes formed near the opposite ends of said substrate so as to be spaced apart from said signal electrode and said grounding electrode.

8. The optical waveguide device according to claim 7, further comprising a pair of protective members bonded to said substrate so as to abut against said dummy electrode from the opposite ends of said substrate.

9. The optical waveguide device according to claim 7, wherein said substrate comprises an $LiNbO_3$ substrate,

and said optical waveguide is formed by thermally diffusing Ti in said $LiNbO_3$ substrate.

10. An optical modulator comprising:

a substrate having an electro-optic effect;

an optical waveguide structure having an input waveguide formed in said substrate, an output waveguide formed in said substrate, and first and second waveguides extending between said input waveguide and said output waveguide, said first and second waveguides being connected to said input and output waveguides, respectively;

a first signal electrode formed over said first waveguide;

a second signal electrode formed over said second waveguide;

a grounding electrode formed on said substrate; and

a pair of dummy electrodes formed near the opposite ends of said substrate so as to be spaced apart from said first and second signal electrodes and said grounding electrode.

11. The optical modulator according to claim 10, wherein said substrate comprises an $LiNbO_3$ substrate, and said optical waveguide is formed by thermally diffusing Ti in said $LiNbO_3$ substrate.